



ENVIRONMENTAL
IMPACT STATEMENT

Draft Purpose and Need

Mountain View Corridor Environmental Impact Statement

Federal Highway Administration
Federal Transit Administration

with

Utah Department of Transportation
Mountainland Association of Governments
Wasatch Front Regional Council
Utah Transit Authority

UDOT Project No. *SP-0067(3)0

July 2004

Contents

1.0	PURPOSE OF AND NEED FOR ACTION	1-1
1.1	Study Area Description	1-2
1.2	Project History	1-3
1.3	Summary of Purpose and Need	1-4
1.3.1	Purpose	1-4
1.3.2	Need	1-5
1.4	Growth Trends	1-7
1.4.1	Population Growth	1-8
1.4.2	Employment Growth	1-9
1.4.3	Household Growth	1-9
1.5	Regional and Local Planning Objectives.....	1-9
1.5.1	Metropolitan Long-Range Transportation Plans	1-10
1.5.2	Transportation Planning in the Local General Plans	1-12
1.5.3	Growth Choices Vision	1-13
1.5.4	Regional Planning Studies	1-14
1.5.5	Corridor Planning Studies	1-14
1.6	Needs Assessment	1-15
1.6.1	Transportation Network and Modal Relationships.....	1-15
1.6.2	Travel Patterns	1-15
1.6.3	Regional Roadway Network	1-17
1.6.4	Transit Network	1-20
1.6.5	Pedestrian/Bicycle Facilities	1-21
1.7	Conclusion.....	1-22

Tables

Table 1.3-1. Summary of Project Need	1-6
Table 1.4-1. Growth in Population, Employment, and Households in the Mountain View Corridor Study Area, 2001 to 2030	1-8
Table 1.5-1. City and Community General Plans that Identify a Need for the Mountain View Corridor	1-12
Table 1.6-1. 2001 and 2030 Total Miles of Roadway ^a in the Study Area with PM Peak Period LOS of E or F, No-Action Alternative	1-18
Table 1.6-2. 2001 and 2030 User Delay, Average Speed, and Lost Productivity, No-Action Alternative	1-19
Table 1.6-3. Locations with Above-Average Accident Rates in the Mountain View Corridor Study Area.....	1-20
Table 1.6-4. Transit Use Pattern by County.....	1-21

Figures

[Figure 1-1.](#) Mountain View Corridor Study Area Map

[Figure 1-2.](#) Future (2030) No-Action Transportation Network, I-80 to 4100 South

[Figure 1-3.](#) Future (2030) No-Action Transportation Network, 4100 South to 10400 South

Figure 1-4. Future (2030) No-Action Transportation Network, 10400 South to Point of the Mountain

Figure 1-5. Future (2030) No-Action Transportation Network, Point of the Mountain to Utah Lake

Figure 1-6. 2001–2030 Population Growth

Figure 1-7. 2001–2030 Employment Growth

Figure 1-8. Current (2001) Transportation Network, I-80 to 4100 South

Figure 1-9. Current (2001) Transportation Network, 4100 South to 10400 South

Figure 1-10. Current (2001) Transportation Network, 10400 South to Point of the Mountain

Figure 1-11. Current (2001) Transportation Network, Point of the Mountain to Utah Lake

Figure 1-12. 2030 Home-Based Work Trips Originating in the Mountain View Corridor Study Area

Figure 1-13. Current (2001) Level of Service Deficiencies, I-80 to 12600 South

Figure 1-14. Current (2001) Level of Service Deficiencies, 12600 South to Utah Lake

Figure 1-15. Future (2030) Level of Service Deficiencies, I-80 to 12600 South

Figure 1-16. Future (2030) Level of Service Deficiencies, 12600 South to Utah Lake

1.0 Purpose of and Need for Action

This Environmental Impact Statement (EIS) for the Mountain View Corridor has been prepared according to the provisions of the National Environmental Policy Act (NEPA) and the corresponding regulations and guidelines of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), the lead federal agencies. This EIS will also be used by the U.S. Army for portions of the project that cross the Camp Williams National Guard Training Site to fulfill NEPA compliance requirements pertaining to any right-of-way grant across federal lands.

This document also conforms to the requirements of the Utah Department of Transportation (UDOT), the project sponsor and lead state agency. In addition, the Mountainland Association of Governments (MAG), the Wasatch Front Regional Council (WFRC), and the Utah Transit Authority (UTA) are co-project sponsors and provided assistance in developing this EIS.

Lead Agencies and Project Sponsors. FHWA and UDOT have joint responsibility for developing highway infrastructure in Utah. These agencies are working together to make the highway-related decisions for the Mountain View Corridor based on the EIS process. Similarly, FTA and UTA share the responsibility for transit. FHWA, UDOT, FTA, and UTA have been working together throughout the EIS process to ensure that a balanced multimodal transportation system that meets the needs of the public is implemented.

Metropolitan Planning Organizations. WFRC and MAG are designated metropolitan planning organizations (MPOs) that work in partnership with UDOT, UTA, and other stakeholders to develop long-range transportation plans for the communities in their jurisdictions. WFRC's area of responsibility includes Davis, Morgan, Salt Lake, Tooele, and Weber Counties. MAG's area of responsibility includes the communities in Utah, Summit, and Wasatch Counties (see Section 1.5.1, Metropolitan Long-Range Transportation Plans). As the regional MPOs, WFRC and MAG will provide input into the decision process for highways and transit in Salt Lake and Utah Counties, respectively.

Cooperating Agencies. Cooperating agencies involved with the preparation of this EIS include the U.S. Fish and Wildlife Service (USFWS) and the U.S. Environmental Protection Agency (EPA). These agencies have been participating in the development of relevant technical studies and methodologies and have been identifying EIS content necessary to meet NEPA requirements and other requirements regarding jurisdictional approvals, permits, licenses, and clearances.

1.1 Study Area Description

The Mountain View Corridor study area extends northward from the northern shore of Utah Lake in Utah County to Interstate 80 (I-80) in Salt Lake County (see Figure 1-1, Mountain View Corridor Study Area). The northern portion of the study area is in west Salt Lake County and the southern portion is in northwest Utah County. The boundaries of the study area are shown in Figure 1-1 and are defined as follows:

- **Salt Lake County.** The northern limit of the study area is I-80. The eastern limits in Salt Lake County are Bangerter Highway from I-80 to 13400 South and Interstate 15 (I-15) from 13400 South to the Utah County line. The western limit is the foothills of the Oquirrh Mountains. The southern limit of the study area in Salt Lake County is the Utah County line.
- **Utah County.** The northern limit of the study area in Utah County is the Salt Lake County line and the southern limit is the northern end of Utah Lake. The eastern limit is I-15 and the western limit is the eastern edge of the city of Eagle Mountain.

The limits of the study area were developed based on the travel demand and consider influencing factors such as growth and developments outside the study area in communities such as Eagle Mountain and Saratoga Springs. In addition, to address travel between Salt Lake and Utah Counties and the need for logical project termini, both the west side of Salt Lake County and the northwest portion of Utah County were included in the study area.

In the Salt Lake County portion of the study area, I-80 is the northern boundary of the transportation network because the Great Salt Lake limits growth north of I-80. Travel model sensitivity testing demonstrated that transportation improvements west of State Route (SR) 111 (at the foot of the Oquirrh Mountains) would not serve the travel demand because most of the demand in this part of the study area is oriented toward Salt Lake City (eastward) and travel toward SR 111 would be out of direction (westward). Bangerter Highway is the eastern boundary of the study area because transportation improvements east of this highway would not relieve the north-south travel demand in the study area.

In the Utah County portion of the study area, there will not be enough travel demand by 2030 south of Saratoga Springs, which is north and west of Utah Lake, to warrant major transportation improvements. In addition, about 50% of the trips from the Saratoga Springs and Eagle Mountain areas are to the Provo-Orem area (southeast) and would not be served with an I-15 connection at the southern end of Utah Lake because of the out-of-direction travel (south and then

north). Therefore the study area in Utah County was established from the northern end of Utah Lake to the eastern edge of the city of Eagle Mountain. The eastern limit of the study area is I-15 because this facility is the major north-south highway in the region.

1.2 Project History

The need for a continuous north-south transportation facility from western Salt Lake County to northern Utah County has been identified in long-range transportation plans since the 1960s. A corridor in the vicinity of 5600 West was part of the original *Salt Lake Area Transportation Study* (Wilbur Smith and Associates 1965). The facility was shown as a principal arterial street serving the west side of the Salt Lake valley from 5400 South to California Avenue (about 1400 South). In addition, the plan showed 5600 West being extended southward to SR 111 as a proposed new arterial.

During the 1990s, FHWA, UDOT, WFRC, and the local governments began an EIS for 5600 West as an arterial with at-grade intersections (controlled by traffic lights) with a southern terminus at Old Bingham Highway (FHWA and UDOT 1997). During the EIS process, WFRC determined that an arterial with at-grade intersections would not accommodate the expected traffic projections. Because there were unresolved issues regarding the southern connection point and the type of facility (arterial versus freeway), and because resources were insufficient to study a new grade-separated alignment, the Draft EIS was not completed.

Over the past several years, the transportation systems in the study area have been the subject of other studies and plans concerning the need to satisfy future transportation demands. Two studies, the *Western Transportation Corridor Study, I-80 to Salt Lake/Utah County Line* (WFRC 2001) and the *North Valley Connectors Study* (MAG 2002), address the need for major transportation facilities in the study area. In addition, various local governments have developed comprehensive plans that assume continued population growth and the availability of improved transportation facilities.

1.3 Summary of Purpose and Need

1.3.1 Purpose

The Mountain View Corridor is primarily intended to achieve the following objectives:

- **Improve Regional Mobility by Reducing Roadway Congestion.** Improve regional mobility for automobile, transit, and freight trips by reducing roadway congestion compared to the No-Action condition (see page 1-7, 2030 No-Action Definition) on roadways serving the major north-south travel movements in the Salt Lake County portion of the study area and the major east-west and north-south travel movements in the Utah County portion of the study area.
- **Improve Regional Mobility by Supporting Increased Transit Availability.** Improve regional mobility by supporting increased availability of transit compared to the No-Action condition as an alternative to automobile trips for the major north-south travel movements in the Salt Lake County portion of the study area and the major east-west and north-south travel movements in the Utah County portion of the study area.
- **Support Local Growth Objectives.** Support local economic development and growth objectives as expressed through locally adopted land use and transportation plans and policies, including the principles reflected in the Growth Choices Vision (see Section 1.5.3, Growth Choices Vision) by providing transportation improvements that complement locally established land use plans.

Other secondary objectives of the project are as follows:

- **Increase Roadway Safety.** Reduce accident rates and the number of high-accident locations (compared to the No-Action condition) on the roadways serving the major north-south travel movements in the Salt Lake County portion of the study area and the major east-west and north-south travel movements in the Utah County portion of the study area.
- **Support Increased Bicycle and Pedestrian Options.** Support increased availability of bicycle and pedestrian options consistent with the adopted regional transportation plans in the portions of the study area in Salt Lake and Utah Counties.

1.3.2 Need

The major transportation needs for the Mountain View Corridor study area are a result of rapidly growing population and employment levels in the study area. The existing roadway network in the study area consists of arterial streets that are not intended to accommodate a high volume of long-distance through trips and freight movements. The existing transit network consists primarily of local and express bus service. These conditions have resulted in the following needs:

- Lack of adequate north-south transportation capacity in western Salt Lake County
- Lack of adequate transportation capacity in northwest Utah County
- Increased travel time and lost productivity
- Lack of transit availability
- Reduced roadway safety due to increased roadway congestion
- Lack of continuous pedestrian/bicycle facilities

These principal needs were identified by comparing present and future levels of transportation service in the Mountain View Corridor study area and reviewing the goals and objectives of the 2030 regional transportation plans. Table 1.3-1 below, Summary of Project Need, presents a summary of the project need.

In addition, the need for transportation improvements is recognized by regional and local transportation and land use plans (see Section 1.5, Regional and Local Planning Objectives). The WFRC and MAG long-range transportation plans document the need for additional capacity in the study area and recommend an integrated multimodal approach to solve the long-term regional travel demand.

In addition, local community land use plans in the study area as well as regional land use and transportation plans show major transportation facilities in the study area. The jurisdictions of American Fork, West Valley City, West Jordan, South Jordan, Herriman, Kearns, Riverton, and Salt Lake City have detailed the need for regional facilities in their land use and transportation plans to provide improved mobility to meet the demands from expected growth. An improved transportation system is needed to provide the transportation infrastructure shown in the regional and local transportation and land use plans.

Table 1.3-1. Summary of Project Need

Need Criterion	Change between Existing Conditions and Projected Conditions in the 2030 No-Action Scenario
Lack of Roadway Capacity	<p>As population in the study area increases and development occurs, the regional roadway network will not be able to accommodate the transportation demand.</p> <ul style="list-style-type: none"> According to projections, the 2030 (No-Action) operating conditions on the regional roadway network in the study area will be congested, with much of the network operating at an unacceptable peak-hour level of service (LOS) of LOS E or F (see Section 1.6.3.1, Level of Service). Some of the current (2001) network is already operating at LOS E or F. Total person-trips in the study area will increase by 147%. <p>There is a need to relieve roadway congestion and improve the level of service and mobility in the regional roadway network.</p>
Increased Travel Time and Lost Productivity (Regional Mobility)	<p>Vehicle travel time on the regional roadway network in the study area is projected to increase.</p> <ul style="list-style-type: none"> The year 2030 vehicle travel-time delay in the Mountain View Corridor study area is projected to increase about 833% by 2030 under the No-Action conditions. In addition, lost productivity is projected to increase from about \$121,000 per day in 2001 to about \$1,128,600 per day in 2030. <p>There is a need to reduce travel times and associated lost productivity and to improve mobility for trips on the regional roadway network.</p>
Lack of Transit Availability	<p>Transit service in the study area is limited to bus service; no light rail or other fixed-guideway service is available. In addition, with large increases in travel expected, particularly for work trips, the limited transit options available for such trips (namely bus service) will also be slowed from greater roadway congestion.</p> <ul style="list-style-type: none"> The percentage of work trips using transit is 1.4% and 3.6% for Utah and Salt Lake Counties, respectively. Because the growth in travel demand is expected to exceed increases in roadway capacity, new transit capacity is needed to help meet the expected total travel demand. Moreover, the new transit modes must match or approach the travel time of automobiles for inter-regional trips in order to provide an attractive alternative to travel by car. Existing transportation choices cannot meet that requirement. <p>There is a need to improve the availability of transit service as an alternative to travel by automobile.</p>
Reduced Roadway Safety	<p>Within the Mountain View Corridor study area, roadway safety is a concern. Numerous intersections in the study area have accident rates that substantially exceed the statewide average for comparable roadways (see Table 1.6-3, Locations with Above-Average Accident Rates in the Mountain View Corridor Study Area).</p> <ul style="list-style-type: none"> Increased congestion by 2030 would increase the risk of vehicle accidents as demand increases and the level of service decreases. <p>There is a need to reduce accident rates and to continue providing safe facilities as congestion increases.</p>
Lack of Pedestrian/Bicycle Facilities	<p>Currently, there are no continuous north-south or east-west pedestrian/bicycle facilities in the Mountain View Corridor study area. Expanded trail facilities are included in the WFRC and MAG long-range plans.</p> <p>There is a need to improve the availability of pedestrian/bicycle facilities as an alternative to travel by automobile.</p>
Source: Wasatch Front Regional Council – Mountainland Association of Governments 2003 (Traffic Model)	

The remainder of this chapter presents data that document the project need. Project need was determined by quantifying the change in anticipated transportation demand and land use between existing (2001) and forecasted (2030) conditions using empirical measures including travel demand, travel time, lost productivity, safety, and other measures.

2030 No-Action Definition. Existing conditions were those present at the beginning of the EIS process. The need for transportation improvements in the Mountain View Corridor study area is based on 2030 No-Action conditions as identified in the WFRC and MAG long-range plans as follows:

- In the Salt Lake County portion of the study area, the No-Action conditions assume the same demographics as the WFRC long-range plan and all of the roadway and transit improvements in the plan except for a six-lane north-south freeway recommended in the 5600 West area.
- In the Utah County portion of the study area, the No-Action conditions assume the same demographics as the MAG long-range plan and all of the roadway and transit improvements in the plan except for the three east-west arterials considered in the *North Valley Connectors Study* (MAG 2002) (see Section 1.5.5, Corridor Planning Studies).

Figure 1-2 through Figure 1-5, Future (2030) No-Action Transportation Network, show planned expansion of the roadway and transit networks in the study area as identified in the WFRC and MAG long-range plans.

A long-range plan is a transportation plan with at least a 20-year timeframe that describes anticipated highway and transit needs in a specific area. Transportation needs are based on projected and planned socioeconomic and land use growth within a region. WFRC and MAG are responsible for long-range planning in the study area. The long-range plans are coordinated with UDOT, UTA, and local governments. The projects identified in the long-range plans are used in the 2030 regional travel demand model developed by the MPOs.

1.4 Growth Trends

Population, employment, and household growth are all important factors in travel demand. Large increases in any of these factors over an extended period can cause substantial increases in travel demand. Provided below is a summary of the expected growth in the study area and in Salt Lake and Utah Counties by 2030.

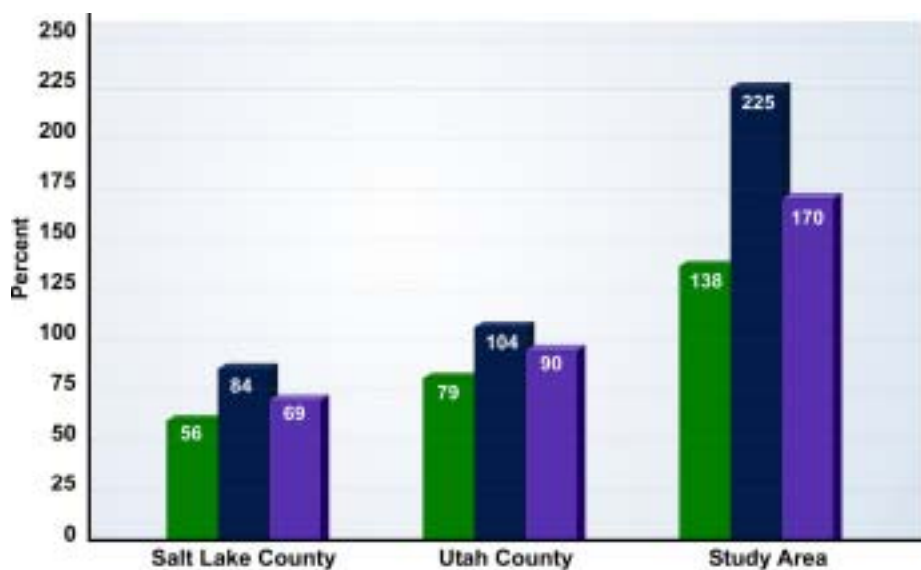
Data show that by 2030, population, employment, and households are expected to increase at higher percentage rates in the study area than in the surrounding areas of Salt Lake and Utah Counties. The reason for the high growth rate is that much of the

open land available for development in the two counties is within the study area. Although the Mountain View Corridor project is being studied to meet 2030 travel demand, not all available open land in the study area is projected to be developed by 2030. Therefore, the growth in the study area could continue beyond 2030 if no other factors such as water availability or air quality limit this growth. For example, in areas such as the proposed Kennecott Daybreak development and the city of Eagle Mountain, growth is expected to continue past the 2030 timeframe. Such growth will influence the transportation system in the study area by increasing travel demand. The population, employment, and household projections in the following sections were obtained from WFRC (2003) and MAG (2003).

1.4.1 Population Growth

Table 1.4-1 shows the projected population, employment, and household growth in Salt Lake and Utah Counties and in the study area. By 2030, population in Salt Lake and Utah Counties is expected to increase by 56% and 79%, respectively, while population in the study area is expected to increase from 205,000 in 2001 to 531,000 in 2030 (an increase of 159%). Figure 1-6, 2001–2030 Population Growth, shows the percent growth expected in the study area.

Table 1.4-1. Growth in Population, Employment, and Households in the Mountain View Corridor Study Area, 2001 to 2030



	Population		Employment		Households	
	2001	2030	2001	2030	2002	2030
Salt Lake County	917,000	1,429,000	436,000	803,000	435,000	734,000
Utah County	386,000	690,000	125,000	256,000	110,000	210,000
Study Area	205,000	531,000	63,000	225,000	52,000	159,000

Source: MAG 2003; WFRC 2003

1.4.2 Employment Growth

Between 2001 and 2030, overall employment in Salt Lake and Utah Counties is expected to increase by 84% and 104%, respectively—a slight increase over the expected population growth. However, in the study area, employment growth is expected to increase from 63,000 in 2001 to 225,000 in 2030 (an increase of 257%). Figure 1-7, 2001–2030 Employment Growth, shows the percent employment growth expected in the study area.

In the Salt Lake County portion of the study area, the main employers and employment areas include ATK-Thiokol, the Jordan Landing shopping center, Intel, and the Camp Williams National Guard Training Site (see Figure 1-1, Mountain View Corridor Study Area Map). In addition, the Salt Lake City International Airport is just north of the Mountain View Corridor study area. In the Utah County portion of the study area, the major employer is Thanksgiving Point, an entertainment complex with shops, a museum, a movie theater, an outdoor amphitheater, and a golf course.

1.4.3 Household Growth

Household data from WFRC differ from the population and employment data discussed above in that the household data are from 2002 instead of 2001. Between 2002 and 2030, the number of households in Salt Lake and Utah Counties is expected to increase by 69% and 90%, respectively. However, in the study area, household growth is expected to be much higher and is projected to increase from 52,000 in 2002 to 159,000 in 2030 (an increase of 209%).

1.5 Regional and Local Planning Objectives

Under Utah state law, local cities and counties are responsible for setting land use policy in their jurisdictions. Projections shown in the WFRC and MAG long-range transportation plans are based on the land use assumptions of the individual cities and counties. Section 3.1, Land Use, provides a detailed description of the land uses by municipality in the study area.

Although the majority of the study area is expected to be developed for residential uses, several regional and community plans note that transportation improvements support economic development. The regional and local planning studies include opportunities for commercial nodes, retail centers, and transit-oriented development in the study area.

The following sections provide a summary of the planning studies that relate to the need for transportation improvements in the study area.

1.5.1 Metropolitan Long-Range Transportation Plans

Wasatch Front Urban Long-Range Transportation Plan: 2003–2030 (WFRC 2003). This long-range plan is the region's plan for highway, transit, and other improvements to meet the growing travel demand over the next 30 years. The plan states that the north-south growth in the western portion of Salt Lake County will be inadequately served by existing transportation systems. Within the Salt Lake County portion of the study area, the long-range plan includes the following transportation improvements related to the regional roadway and transit networks in the study area:

- Construct a freeway in the 5600 West area from SR 201 to the Utah County line.
- Widen 5600 West to a six-lane arterial from SR 201 to I-80.
- Implement bus rapid transit in the study area.
- Possibly extend light rail to the Salt Lake City International Airport, West Valley City, West Jordan, and South Jordan.
- Widen 5600 West from 4400 South to 6200 South and widen Redwood Road from Bangerter Highway to the Utah County line.
- Widen SR 111 to a principal arterial.
- Add bicycle routes on and around 5600 West, 7200 West, and SR 111.
- Provide transitways, high-frequency bus service, and expanded bus service throughout the study area.

Utah Valley Long-Range Transportation Plan: 2003–2030 (MAG 2003). This plan is the fiscally constrained plan for the Provo-Orem urbanized area. It details highway, transit, and other improvements to meet the projected transportation needs in 2030. The plan identifies the need to provide additional east-west roadways in the northwest area of Utah County west of I-15, which is experiencing rapid growth due to the two new cities of Eagle Mountain and Saratoga Springs. To address the transportation need, MAG prepared a *North Valley Connectors Study* (MAG 2002) (see Section 1.5.5, Corridor Planning Studies) to analyze east-west mobility in the northwest portion of Utah County. Within the Utah County portion of the study area, the above plans include the following transportation improvements related to the Mountain View Corridor:

- Construct a new freeway extending south from the Salt Lake County line, connecting to I-15 at the Pleasant Grove interchange, and possibly being the southern portion of one of the east-west North Valley connectors.
- Provide commuter rail service between Salt Lake and Utah Counties.
- Provide regional pedestrian/bicycle facilities along Redwood Road, immediately north of Utah Lake, and adjacent to 7350 North in Lehi.

1.5.2 Transportation Planning in the Local General Plans

Other pertinent local planning documents and land use plans are summarized in Section 3.1, Land Use. Table 1.5-1 provides an overview of the local planning studies that identify a need for transportation improvements related to the Mountain View Corridor.

Table 1.5-1. City and Community General Plans that Identify a Need for the Mountain View Corridor

Community/Plan	Need for Transportation Improvement
City of American Fork General Plan, 2002	A transportation corridor is shown in the southern part of the community along 6400 North in Utah County continuing to 100 West in American Fork. The facility is shown as an arterial-class road with a right-of-way width of 96 feet.
City of Herriman General Plan, 2001	The plan includes establishing a future north-south freeway identified in the <i>Western Transportation Corridor Study</i> (WFRC 2001). The City will continue to establish priorities for constructing or improving the highway.
City of Kearns General Plan, 1995	5600 West is noted as a critical deficiency. The plan recommends that 5600 West should be extended southward to tie into 7800 South. Improvements along 5600 West should be completed as soon as possible to meet future population demands. The plan also notes that Salt Lake County should support mass transit studies.
City of Riverton General Plan, 2001	A transportation corridor (referred to as the Western Transportation Corridor) is identified as an opportunity for reinforcing the planned employment and regional centers in the city. The proposed freeway is shown as a six-lane facility.
Salt Lake City Transportation Master Plan, 1996	The 5600 West corridor is shown in the Transportation Master Plan on both the Rail Transit Plan and the Major Street Plan. On the Major Street Plan, 5600 West is shown as an arterial operated and maintained by UDOT. As a rail transit corridor, the 5600 West corridor is shown as having potential light rail or significant bus service.
Southwest Community (SLCo) General Plan, 1996	The expansion of 5600 West as an arterial to the south is stated as a needed addition to the road network to meet future demands and support access to this part of Salt Lake County.
City of South Jordan Master Transportation Plan, Land Use Element, 2003; Transportation Element, 2001	As part of the Roadway Functional Classification for the city, a UDOT limited-access freeway is shown at 5600 West. Kennecott's Daybreak development has planned a multimodal approach for transportation with a recognized need for north-south travel and a corridor preserved for future transportation improvements. Kennecott's Daybreak development will bring about 30,000 people and 14,000 residential units.
City of West Jordan General Plan, 2003	Policies include preserving right-of-way to ensure proper transportation function, cooperating with UDOT to improve all state roads, and developing a close working relationship with mass transit operators. The plan identifies a proposed freeway just west of 5600 West. A goal identified in the General Plan is establishing a multimodal transportation system including a north-south and east-west light rail system along with transit-oriented developments.
West Valley City Master Plan, 2000	The plan identifies the need for more north-south roads in the vicinity of 5600 West. A specific goal for these north-south roadways is to define an alignment for a freeway facility near 5800 West. The City's vision for transportation is to provide a safe, flexible, and aesthetically pleasing transportation network with a variety of transportation modes including public transportation, trails, and roadways.

1.5.3 Growth Choices Vision

As part of the Mountain View Corridor EIS process, UDOT requested that Envision Utah facilitate a process, referred to as the Growth Choices Study, to help the cities in the study area understand the relationship between land use policy changes and transportation choices in order to facilitate agreement on a vision of future development with unified land use and transportation policies. A summary of the Growth Choices process is provided in the *Mountain View Corridor Growth Choices Process: Helping Solve Our Communities' Transportation Problems* (Envision Utah 2004). The process also included representatives from Salt Lake and Utah Counties, 14 cities, four nongovernmental organizations, a school district, two chambers of commerce, and five landowners in the Mountain View Corridor study area. The Growth Choices process included the following goals:

- Combine land-use and transportation strategies.
- Use the principles of scenario planning to explore the effects of different land use and transportation strategies.
- Implement a wide-ranging public awareness program, including workshops to engage the public in developing scenarios and strategies.
- Develop measurable criteria to evaluate different land use and transportation scenarios.
- Define options to be considered in the Mountain View Corridor EIS.

At the conclusion of the process, the Mountain View Vision Voluntary Agreement was signed by representatives of the cities that participated in the Growth Choices Study, as well as other participating stakeholders. The agreement contained a set of principles central to the future of the Mountain View Corridor. These principles included working toward a common vision; implementing pedestrian-oriented, mixed-use town centers and corridors; providing a variety of housing choices; providing a balanced transportation system; protecting the environment; supporting the Mountain View Corridor Vision EIS Alternative; and including elements of the Vision in future MAG and WFRC long-range plans.

The roadway elements of the Vision included a six-lane freeway from the Utah County line to SR 201 with a potential connection to I-15 in south Bluffdale. In the Utah County portion of the study area, the Vision included a potential parkway (arterial) running from the Salt Lake County line and connecting to the Pleasant Grove/Lindon I-15 interchange. In addition, two new five-lane arterials would provide east-west connections at 2100 North and 1000 South in Lehi.

For public transportation, the Vision included a fixed guideway (for example, a streetcar or bus rapid transit line) along 5600 West from 12600 South to the Salt Lake City International Airport and a bus rapid transit line along SR 73 in Lehi. To support transit, the Vision included compact developments such as mixed-use villages with town centers.

1.5.4 Regional Planning Studies

Inter-Regional Corridor Alternative Analysis (Carter-Burgess 2002). The Inter-Regional Corridor Alternative Analysis was initiated as a collaborative effort in October 1999 by four sponsoring agencies: WFRC, MAG, UTA, and UDOT. The study was conducted to develop a comprehensive plan for the best mix of transportation solutions to meet long-term (30-year) inter-regional mobility needs. Key elements of the plan included identifying long-term, inter-regional transportation needs; developing and evaluating alternatives that will work together as an integrated, multimodal transportation system; and identifying a long-term, multimodal locally preferred alternative for the Wasatch Front and Mountainland planning regions. The Locally Preferred Alternative that was developed in the study included a multimodal solution of commuter rail, bus service, and new highways. This alternative included a new six-lane freeway parallel to 5600 West from I-80 in Salt Lake County to I-15 in Utah County connecting at the Pleasant Grove interchange.

1.5.5 Corridor Planning Studies

5600 West/Jordan Narrows Area Transportation Corridor Major Investment Study (WFRC 1997). This study was undertaken to quantify existing and future transportation needs for the western part of Salt Lake County and the northern part of Utah County, and to identify planning-level responses to these transportation needs. The purpose of the transportation corridor was to provide needed capacity to accommodate the expected high population growth; to fulfill the need for another regional, intercity transportation corridor in Salt Lake County; to reduce future congestion; and to improve the level of service on I-15 between the Alpine interchange in Utah County and I-80 in Salt Lake County. The study recommended a transportation corridor, which would accommodate a six-lane freeway and interchanges at each of the major east-west streets. Mass transit bus service and park-and-ride lots were included as part of the proposal.

Western Transportation Corridor Study, I-80 to Salt Lake–Utah County Line (WFRC 2001). At the request of cities in the Mountain View Corridor area, WFRC initiated this study in 1999 to identify a north-south corridor wide enough to accommodate any or several modes of transportation. The study was conducted to help the cities identify a multimodal transportation corridor to meet the

rapidly increasing travel demand in western Salt Lake County from I-80 to the Salt Lake County–Utah County line. Communities in the area studied alignments with a tentative width of 328 feet. Several of these communities committed to preserving this corridor from development until after this EIS process is completed. Preservation included integrating the corridor into the adopted land use plans and dedicating or preserving right-of-way by the landowners. The corridor recommended in the *Western Transportation Corridor Study* was generally along the 5800 West utility corridor in western Salt Lake County.

North Valley Connectors Study (MAG 2002). The purpose of the *North Valley Connectors Study* was to evaluate the east-west transportation needs in the northwest Utah County area west of I-15 and north of Utah Lake. One of the primary purposes of the study was to evaluate the long-range east-west transportation need with the projected population increase of more than 250% (to 175,000 people) by 2030. The study recommended providing three five-lane major arterials (referred to as north, central, and south corridors) to meet projected increases in east-west travel demand. Although the need for a north-south six-lane freeway from Salt Lake County was not evaluated, the study recommended that one of the three proposed east-west arterials in Utah County should be coordinated with the Mountain View Corridor's connection to I-15. The MAG long-range transportation plan identifies the southern corridor as a freeway connecting to the Pleasant Grove interchange on I-15.

1.6 Needs Assessment

1.6.1 Transportation Network and Modal Relationships

Figure 1-8 through Figure 1-11, Current (2001) Transportation Network, show the existing transportation system linkages and modal relationships in the study area and the adjacent transportation and modal facilities that play a role in the overall system. Many of the existing major roadways in the study area will be congested by 2030. According to traffic projections, total person-trips in the study area will increase from about 1,032,000 in 2001 to 2,548,000 in 2030—an increase of 147%—as a result of the growth in population, employment, and households described in Section 1.4, Growth Trends. Increased traffic will result in congestion in the study area and substantial delays for traffic.

1.6.2 Travel Patterns

To understand travel patterns in the study area (see Figure 1-1, Mountain View Corridor Study Area Map), an origin-destination study was conducted to determine the directions of travel (Parsons Brinckerhoff 2004). The purpose of the

study was to confirm that the principal need for transportation improvements was in the north-south direction in Salt Lake County and in the east-west and north-south directions in Utah County as indicated by previous studies (WFRC 2001; MAG 2002). The analysis was conducted for all trips that occur in the study area. Figure 1-12, 2030 Home-Based Work Trips Originating in the Mountain View Corridor Study Area, shows the major travel patterns in the study area.

1.6.2.1 Salt Lake County Portion of the Study Area

Overall Trips in 2001. For overall trips in 2001, about 37% of the trips that originated in the Salt Lake County portion of the study area traveled in a north-south direction between the cities of West Valley City, West Jordan, South Jordan, and Herriman. These north-south trips occurred in an area generally from SR 201 to 12600 South centering around 5600 West. An additional 36% of the overall trips in 2001 had their destination in the downtown Salt Lake City area. These are considered northeast-southwest trips. Together, the north-south trips and the northeast-southwest trips account for 73% of the total trips.

Overall Trips in 2030. For overall trips in 2030, the north-south trips between the cities in the Salt Lake County portion of the study area are projected to increase from 37% to 45% while the northeast-southwest trips toward downtown Salt Lake City are projected to decrease from 36% to 23%. This combined trip total of 68% accounts for the majority of the overall trips originating in the study area.

Work Trips in 2001. For work trips (trips from home to work) in 2001, about 12% of the trips are north-south trips between cities in the Salt Lake County portion of the study area while 69% are northeast-southwest trips toward Salt Lake City and adjacent areas. These north-south and northeast-southwest work trips account for 81% of the total work trips originating in the study area.

Work Trips in 2030. Similar to the 2030 trip distribution for overall trips, by 2030 the north-south work trips between the cities in the Salt Lake County portion of the study area are projected to increase from 12% to 34% while the northeast-southwest work trips toward Salt Lake City and adjacent areas are projected to decrease from 69% to 42%. This shows that the Salt Lake County portion of the study area would experience a major increase in employment compared to the downtown area of Salt Lake City. The north-south and northeast-southwest work trips account for 76% of all work trips originating in the study area.

These numbers show that an overwhelming majority of work trips as well as overall trips originating in the study area are either north-south or northeast-

southwest oriented. This supports the primary need for transportation improvements in the north-south direction in Salt Lake County.

1.6.2.2 Utah County Portion of the Study Area

Within the Utah County portion of the study area, most trips from the Cedar Fort, Eagle Mountain, Saratoga Springs, and Lehi areas are in an east-west direction heading toward either Redwood Road (SR 68) or I-15. Once the trips intersect these roadways, most either head north on SR 68 or I-15 toward Salt Lake County or head south on I-15 toward the Provo-Orem area.

An examination of average daily traffic shows that about 58% of the 2030 east-west trips traveling on SR 73 (the main roadway in the area) from Cedar Fort, Eagle Mountain, Saratoga Springs, and Lehi would stay on SR 73 heading toward I-15 and about 42% would go north on SR 68 toward Salt Lake County. Of the 58% of trips that reach I-15, most head south toward the Provo-Orem area. This is consistent with MAG driver surveys, which have shown that the split of east-west traffic that travels either south to the Provo-Orem area or north to Salt Lake County is about 50/50.

These analyses support the purpose and need for transportation improvements in both an east-west and north-south direction in northwest Utah County.

1.6.3 Regional Roadway Network

This section provides a summary of the needs assessment for the regional roadway network in the study area under the No-Action Alternative. To evaluate the roadway network, level of service (LOS), travel time, lost productivity, and safety were reviewed. For this assessment, the “regional roadway network” includes roadways classified as freeways, arterials, or collectors.

1.6.3.1 Level of Service

Level of service is a method of measuring the vehicle-carrying capacity of a street or freeway. When the capacity of a roadway is exceeded, the result is congestion and a poor level of service. Level of service is represented by a letter “grade” ranging from A for excellent conditions (free-flowing traffic) to F for failure conditions (extremely congested, stop-and-go traffic). LOS B through LOS E describe progressively worse traffic conditions. Typically, in urban areas, LOS E and F are considered unacceptable operating conditions and LOS D and above are considered acceptable operating conditions.

Within the study area, many of the current north-south and east-west major roadways operate at LOS E or F in the PM (afternoon) peak period and, by 2030,

the congestion on these roads will increase. The PM peak period is from 3 PM to 6 PM and is the most congested period of the day.

Table 1.6-1 summarizes the total miles of freeway, principal and minor arterials, and collector roadways that will operate at LOS E or F during the PM peak period in 2001 and 2030 in the study area under the No-Action Alternative. Figure 1-13 and Figure 1-14 show current (2001) roadway segments that operate at LOS E or F, and Figure 1-15 and Figure 1-16 show future (2030) roadway segments that are projected to operate at LOS E or F in the study area. As shown in the figures, the limits of LOS E or F increase from existing (2001) to future (2030) conditions.

Table 1.6-1. 2001 and 2030 Total Miles of Roadway^a in the Study Area with PM Peak Period LOS of E or F, No-Action Alternative

Roadway	Study Area – Salt Lake County			Study Area – Utah County		
	2001	2030	% Change	2001	2030	% Change
North-south	21	159	+657	6	74	+1,133
East-west	103	370	+259	5	43	+760
Total	124	529	+327	11	117	+964

^a Roadways include freeways (I-15), principal and minor arterials, and collectors.

Source: WFRC and MAG Regional Travel Demand Model, 2003

1.6.3.2 Travel Time and Lost Productivity (Regional Mobility)

Regional mobility addresses the need to develop a transportation system that improves access by reducing travel times. The need for improved regional mobility is documented by the forecasted year 2030 travel times.

Table 1.6-2 below provides the projected travel delays in the study area and the resulting cost in terms of congestion delay for roadway users in the study area under No-Action conditions. The delay, measured in hours, is based on the additional time it takes to travel under congested conditions compared to free-flowing traffic conditions. A cost of \$8.50 per hour is assigned to the delay to arrive at the total lost productivity (WFRC 2004).

The increase in travel time in the study area resulted in lost productivity of \$121,000 per day in 2001 and is expected to result in total lost productivity of \$1,128,600 per day in 2030, an 833% increase (in 2003 dollars). Taking into account the actual number of drivers in 2001 and the projected number in 2030, the number of drivers would increase by 279%. Within the study area, the average system speed is expected to decrease from 39 mph (miles per hour) in 2001 to 29 mph in 2030.

Table 1.6-2. 2001 and 2030 User Delay, Average Speed, and Lost Productivity, No-Action Alternative

Area ^a	User Delay (hours)			Average Speed (mph)			Lost Productivity (per day) ^b		
	2001	2030	% Change	2001	2030	% Change	2001	2030	% Change
Salt Lake County portion of the study area	9,900	71,300	+620	36	28	-22	\$108,900	\$784,300	+620
Utah County portion of the study area	1,100	31,300	+2,745	52	33	-36	\$12,100	\$344,300	+2,745
Mountain View Corridor study area (Salt Lake and Utah counties combined)	11,000	102,600	+833	39	29	-26	\$121,000	\$1,128,600	+833

^a The table results are for only those portions of Salt Lake and Utah Counties within the Mountain View Corridor study area. The results include freeways (I-15), principal and minor arterials, and collectors.

^b Lost productivity is based on an aggregate user rate of \$8.50 per hour.

Source: Based on results from the WFRC and MAG Regional Travel Demand Model, 2003.

1.6.3.3 Safety

Within the study area, the primary safety concern is an above-average accident rate at the numerous intersections on arterials (local roads). The local road network in the study area was primarily designed for local traffic. The numerous intersections and access points to businesses and residential areas on the principal arterials (for example, 5600 West) increase congestion and accident rates. According to data from UDOT, the accident rate in Utah for principal arterials is 5.1 accidents per million vehicle-miles traveled (VMT), compared to 1.5 accidents per million VMT for freeways such as I-15 (UDOT 2003).

Growth in the study area has and will continue to increase the volume of local trips as well as regional trips to job centers outside the study area, such as downtown Salt Lake City. As traffic volumes increase on the principal arterials in the study area, it is expected that there will be a proportional increase in the number of accidents.

Within the study area, the locations with a high number of accidents (over the past 3 years) have been identified along with predominant type of accident (see Table 1.6-3 below). High-accident locations are locations where the accident rate exceeds the expected state average for similar types of roadways. These high-accident areas correspond to the LOS E and F locations in Section 1.6.3.1, Level of Service. These locations are expected to experience major increases in traffic volume between now and 2030, which would further increase the accident rates in these areas.

Table 1.6-3. Locations with Above-Average Accident Rates in the Mountain View Corridor Study Area

Location	Predominant Accident Cause(s)	Accident Rate ^a	Expected Average ^{a,b}	% Difference
4700 South at 4000 West	Head-on turning left	2.11	1.19	77
4700 South at 4800 West	Rear-end	2.28	1.22	87
5600 West at 5400 South	Perpendicular accident	1.62	1.22	33
5400 South at 4000 West	Head-on turning left	3.08	1.25	146
5400 South at 4800 West	Rear-end	2.62	1.23	113
7800 South at 4000 West	Head-on turning left	2.96	1.22	143
New Bingham Highway at 4800 West	Perpendicular accident	8.83	1.22	624
Redwood Road at 14400 South	Head-on turning left	1.68	1.30	29
SR 73 at SR 68	Perpendicular accident	4.99	1.30	284
SR 73 at 850 East	Head-on turning left	3.00	1.04	188
Bangerter Highway at 5400 South	Rear-end	2.36	1.44	64
Bangerter Highway at 7800 South	Rear-end	1.70	1.20	42

^a Expressed as accidents per million VMT^b Five-year average for similar types of roadways

Source: UDOT 2003; West Valley City 2003

1.6.4 Transit Network

Travel in the study area is currently limited to private vehicles, regular bus service, express bus service, and non-motorized modes such as bicycles and walking. Figure 1-8 through Figure 1-11, Current (2001) Transportation Network, show the existing bus routes in the study area. The bus system also includes a series of park-and-ride lots. Future east-west light rail service is planned in the study area as part of the Mid-Jordan Transit Corridor from the existing 6400 South UTA TRAX station to about 5600 West in South Jordan. In addition, both the WFRC and MAG long-range plans include a multimodal solution for the study area.

With large increases in travel expected, particularly for work trips, the limited transit options available for such trips (namely bus service) will also suffer from

greater roadway congestion. The opportunities for major improvements to existing roadways in both the Salt Lake and Utah County portions of the study area are limited, and the traffic congestion on the roadways that buses currently use will also worsen. In short, the transit options (buses) that are currently available in the study area will suffer from increased roadway congestion in the future by having longer travel times.

Regular bus service and express bus service are the only fixed-route transit services currently available to the communities in Salt Lake and Utah Counties within the study area. Typical transit use for work trips is shown in Table 1.6-4. The percentage of all work trips using transit is 1.4% and 3.6% for Utah and Salt Lake Counties, respectively. About three-quarters of all work trips in each county are shorter than 30 minutes, but only 30% of work trips using transit are shorter than 30 minutes. Because the growth in travel demand is expected to exceed increases in roadway capacity, new transit capacity is needed to help meet the expected demand. Moreover, the new transit modes must match or approach the travel time of automobiles for inter-regional trips in order to provide an attractive alternative to travel by car. Existing transportation choices cannot meet that requirement.

Table 1.6-4. Transit Use Pattern by County

Transit Use Pattern	Salt Lake County	Utah County
People who work outside the home	421,679	155,330
People who commute to work using transit	15,332 (3.6%)	2,280 (1.4%)
Percent of all work trips that are shorter than 30 minutes	72%	81%
Percent of work trips using transit that are shorter than 30 minutes	30%	29%

1.6.5 Pedestrian/Bicycle Facilities

Currently, there are no continuous north-south or east-west pedestrian/bicycle facilities through the study area. Expanded trail facilities are included in the WFRC and MAG long-range plans along with improvements to the existing trail system (see Figure 1-2 through Figure 1-5, Future (2030) No-Action Transportation Network). When making transportation improvements, UDOT also considers adding trails or pedestrian facilities in order to be consistent with adopted regional transportation plans.

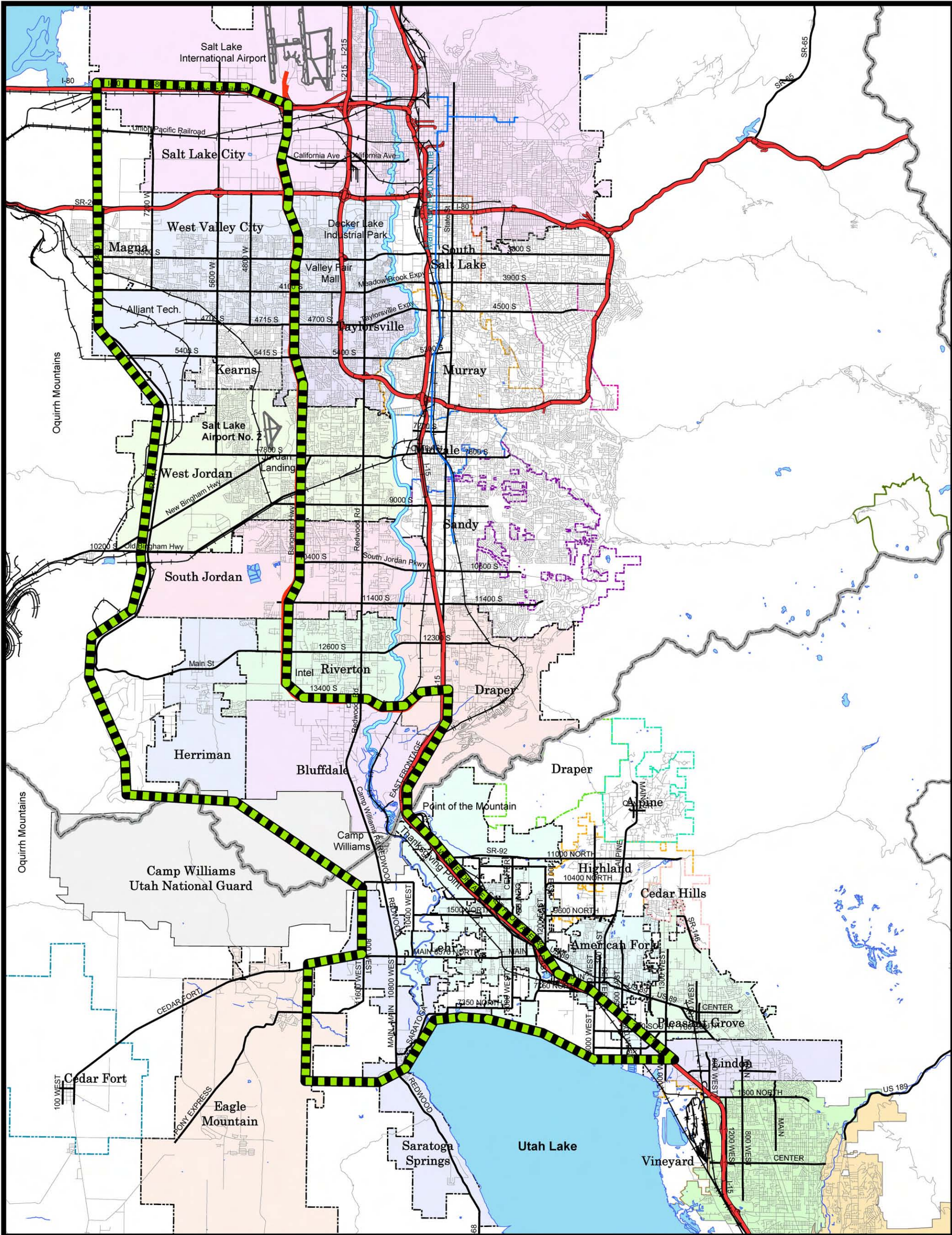
1.7 Conclusion

The Mountain View Corridor study area is projected to experience tremendous growth in the next 30 years with a 159% increase in population, a 257% increase in employment, and a 209% increase in households. This growth will cause many of the major north-south and east-west roadways in the Salt Lake County portion of the study area, and many of the major east-west and north-south roadways in the Utah County portion of the study area, to operate at LOS E or F. It will also create new demands for transit service, possibly including fixed guideway transit facilities.

This congestion will cause an increase in travel delay, with the associated total lost productivity projected to increase from \$121,000 per day in 2001 to \$1,128,600 per day in 2030. The percentage of all work trips using transit is currently 1.4% and 3.6% for Utah and Salt Lake Counties, respectively. Because the growth in travel demand is expected to exceed roadway capacity, new transit capacity is needed to help meet the expected demand. Moreover, the new transit modes must match or approach the travel time of automobiles for inter-regional trips in order to provide an attractive alternative to travel by car. Existing transportation choices cannot meet that requirement.

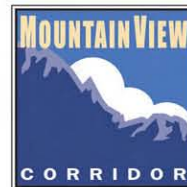
The local road network in the study area was primarily designed for local traffic. The numerous intersections and access points to businesses and residential areas on the principal arterials increase congestion and have pushed the accident rates above expected statewide averages. To accommodate the expected growth and resulting congestion, most of the state, regional, and local transportation and land use plans in the study area identify a need for an improved transportation system.

Based on the above facts, a combination of highway and transit improvements is needed in the Mountain View Corridor study area to meet the project purpose identified in Section 1.3.1, Purpose.



0 0.5 1 2 3 4 Miles

- Study Area
- Streets
- Major Roads
- Freeways
- Railroads
- TRAX

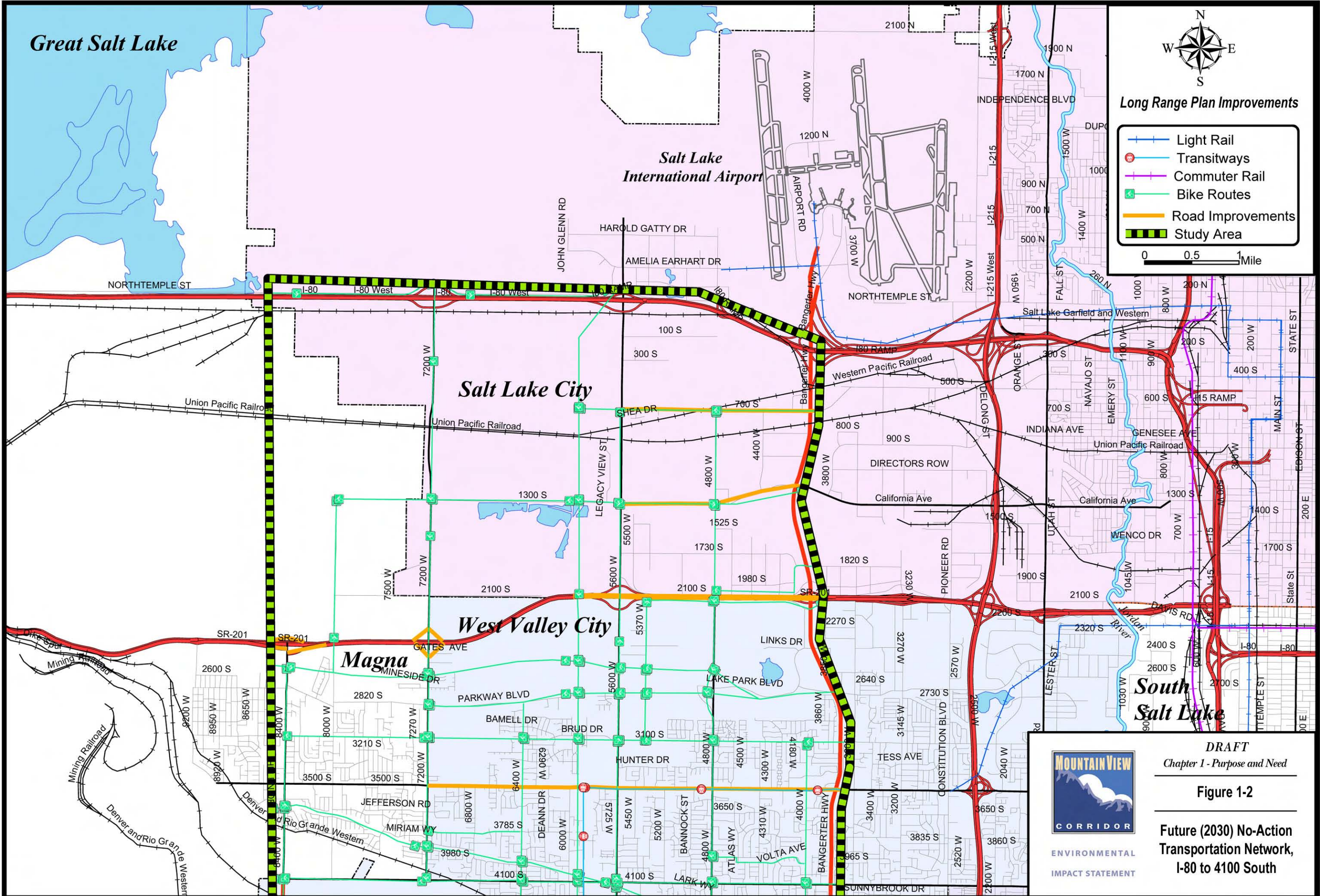


ENVIRONMENTAL
IMPACT STATEMENT

DRAFT
Chapter 1 - Purpose and Need

Figure 1-1

**Mountain View Corridor
Study Area Map**



Long Range Plan Improvements

- Light Rail
- Transitways
- Commuter Rail
- Bike Routes
- Road Improvements
- Study Area

0 0.5 1 Mile

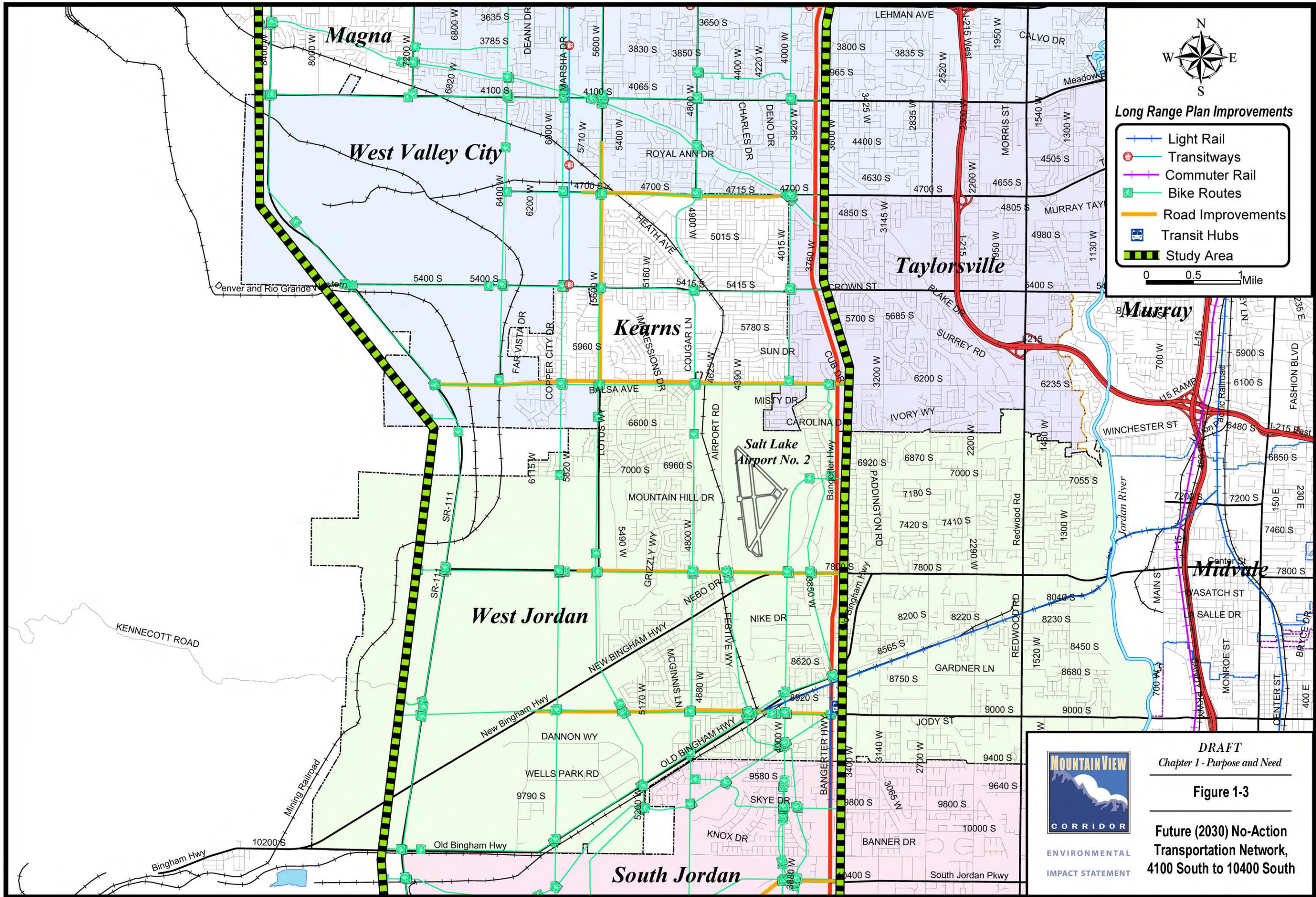


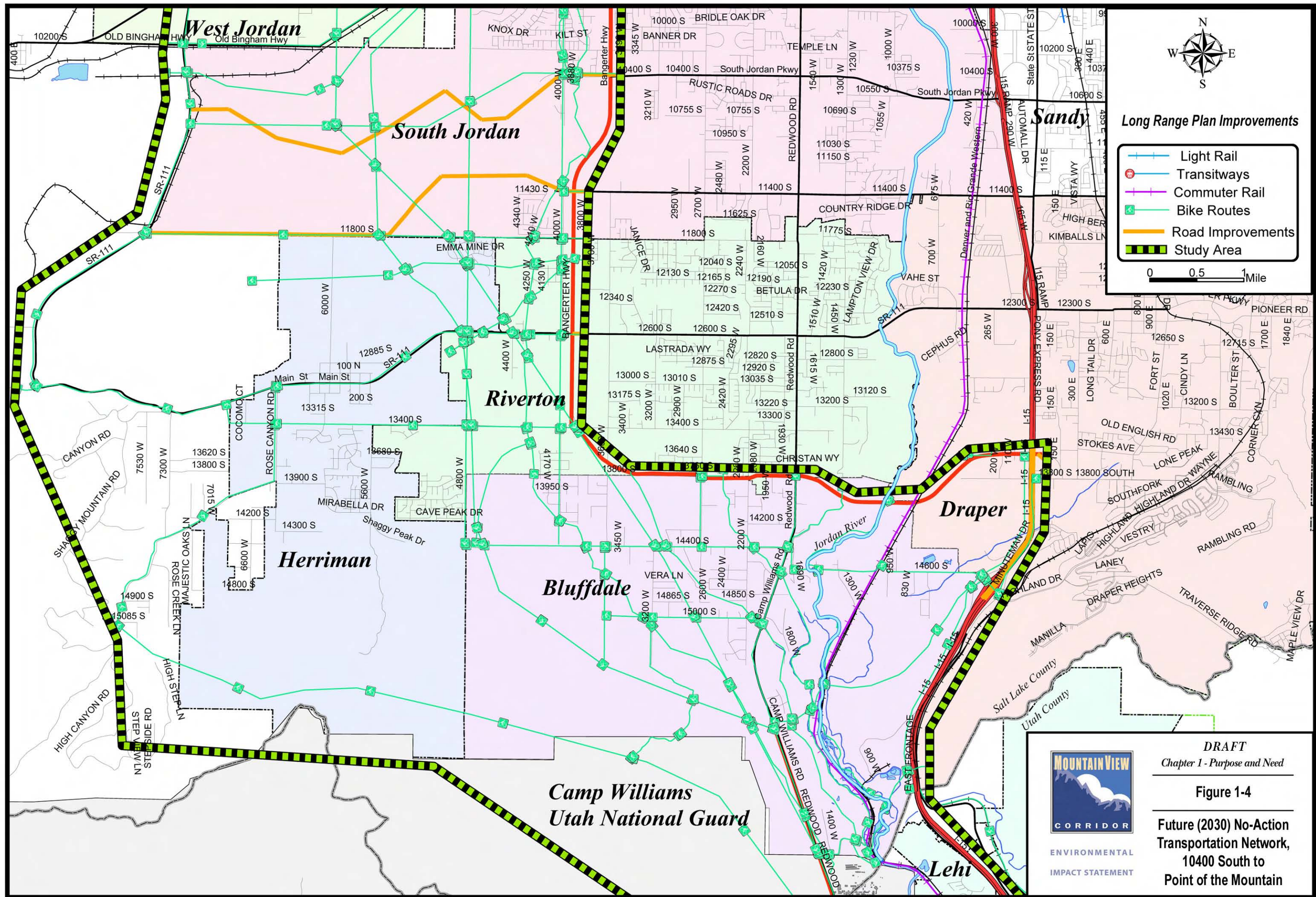
ENVIRONMENTAL
IMPACT STATEMENT

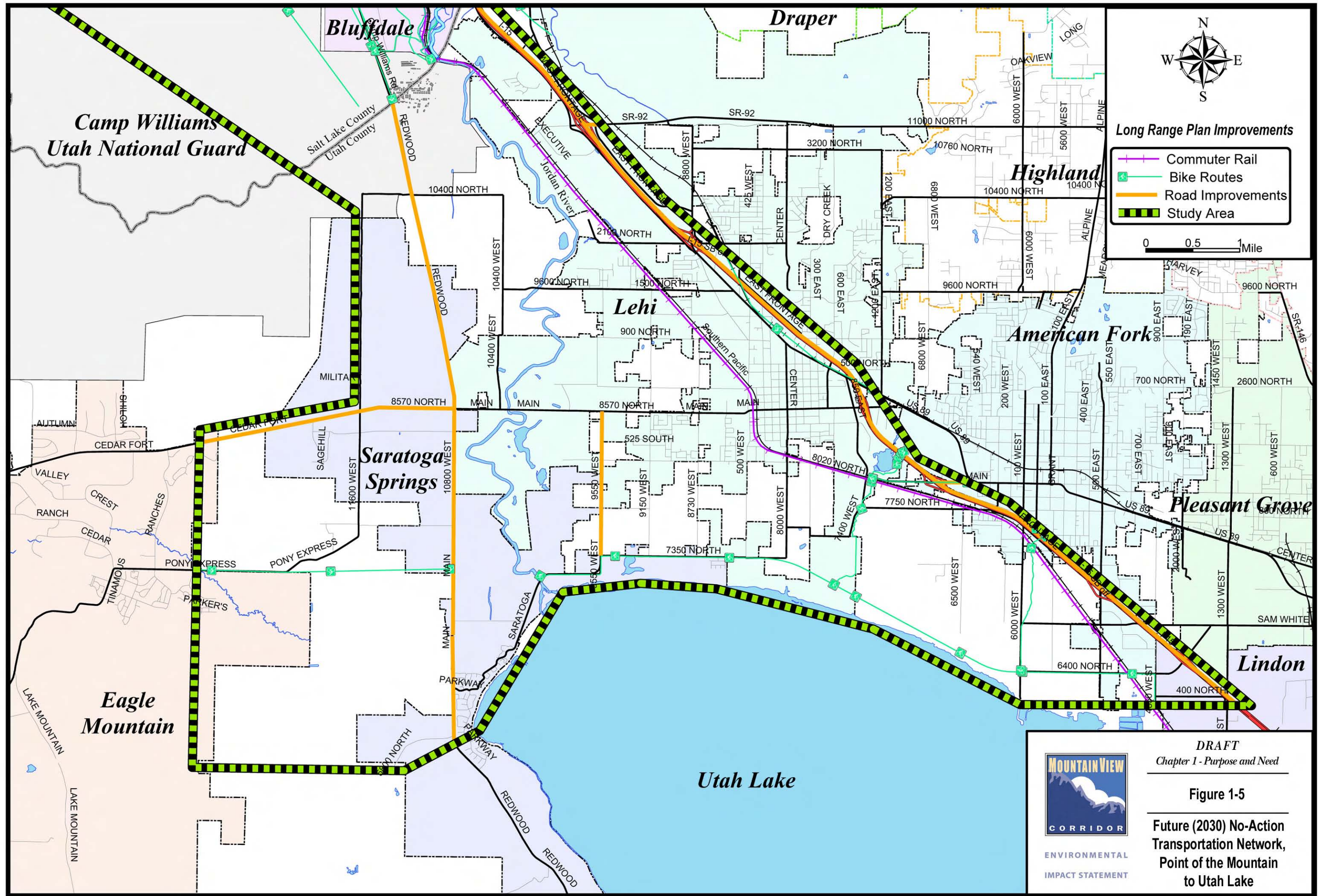
DRAFT
Chapter 1 - Purpose and Need

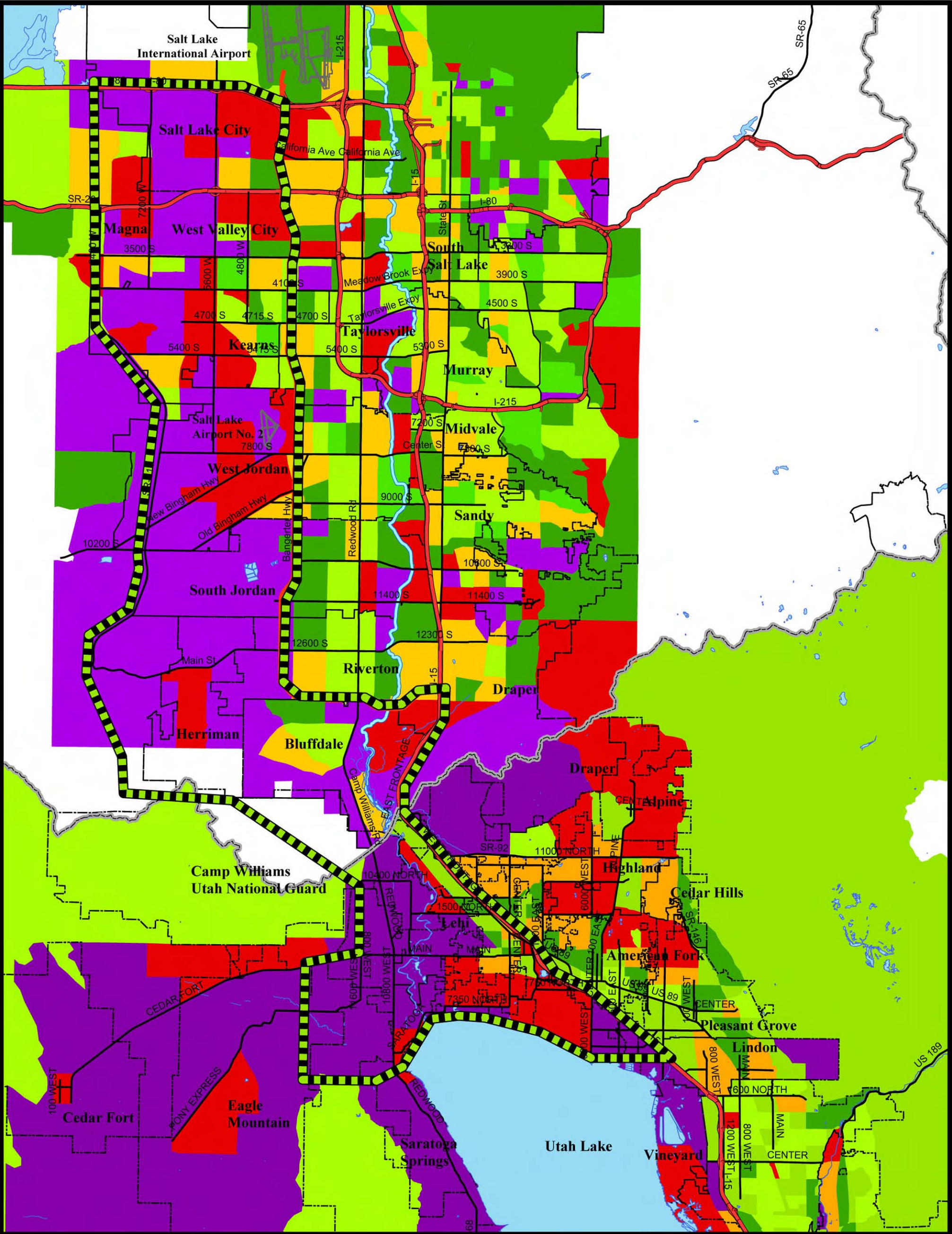
Figure 1-2

**Future (2030) No-Action
Transportation Network,
I-80 to 4100 South**

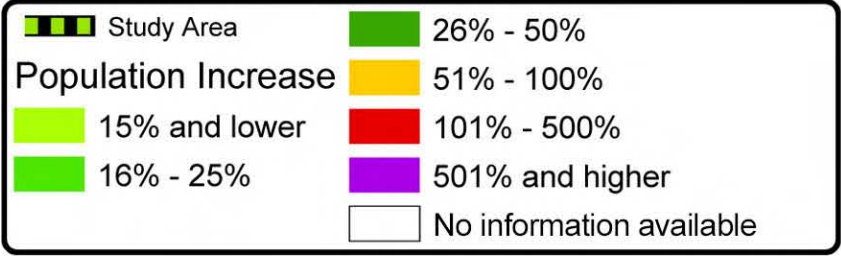








0 0.5 1 2 3 Miles

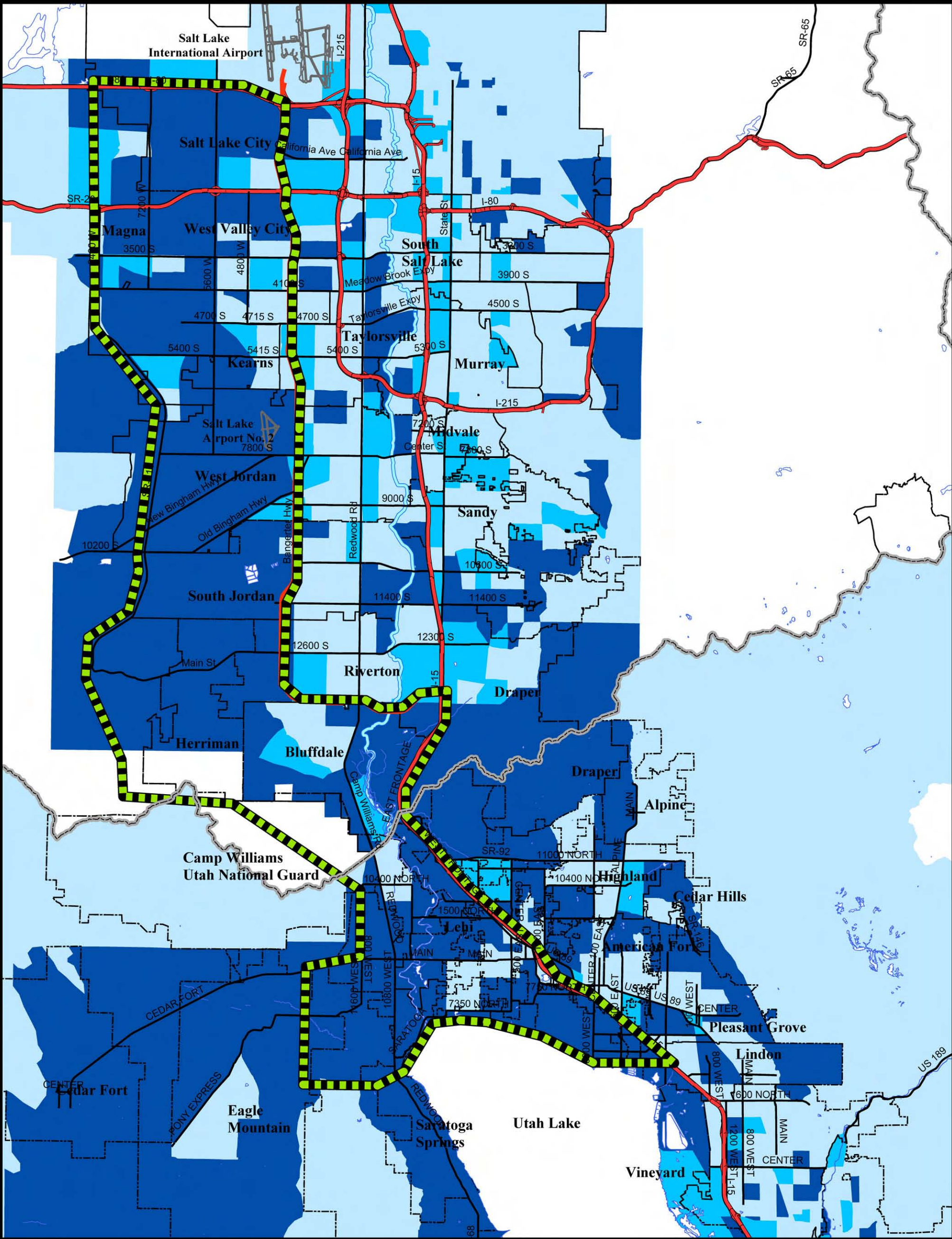


ENVIRONMENTAL
IMPACT STATEMENT

DRAFT
Chapter 1 - Purpose and Need

Figure 1-6

2001-2030
Population Growth



0 0.5 1 2 3 4 Miles

Study Area

Employment Increase

50% and lower

51% - 100%

101% and higher

No information available

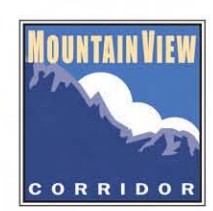
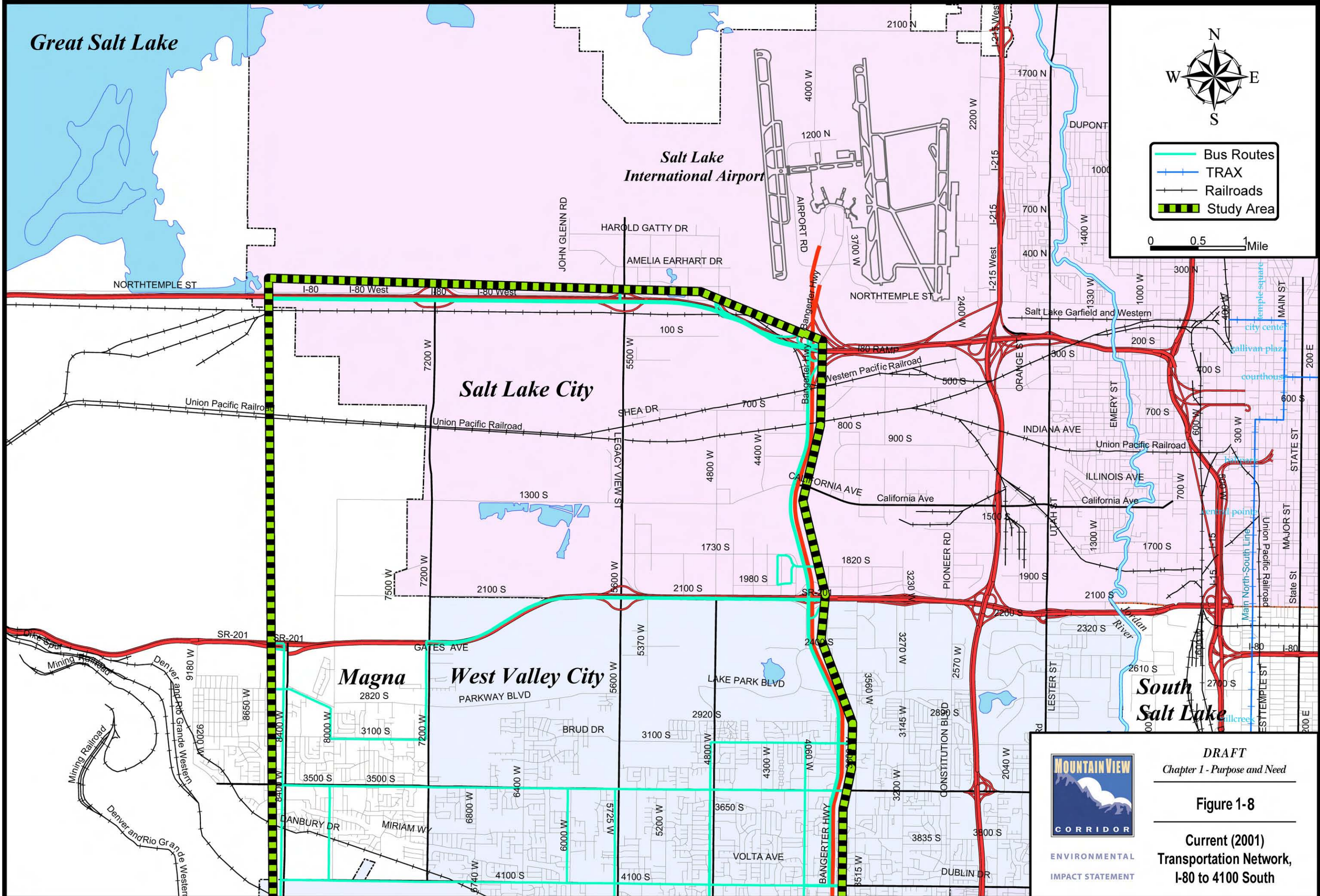


ENVIRONMENTAL
IMPACT STATEMENT

DRAFT
Chapter 1 - Purpose and Need

Figure 1-7

2001-2030
Employment Growth

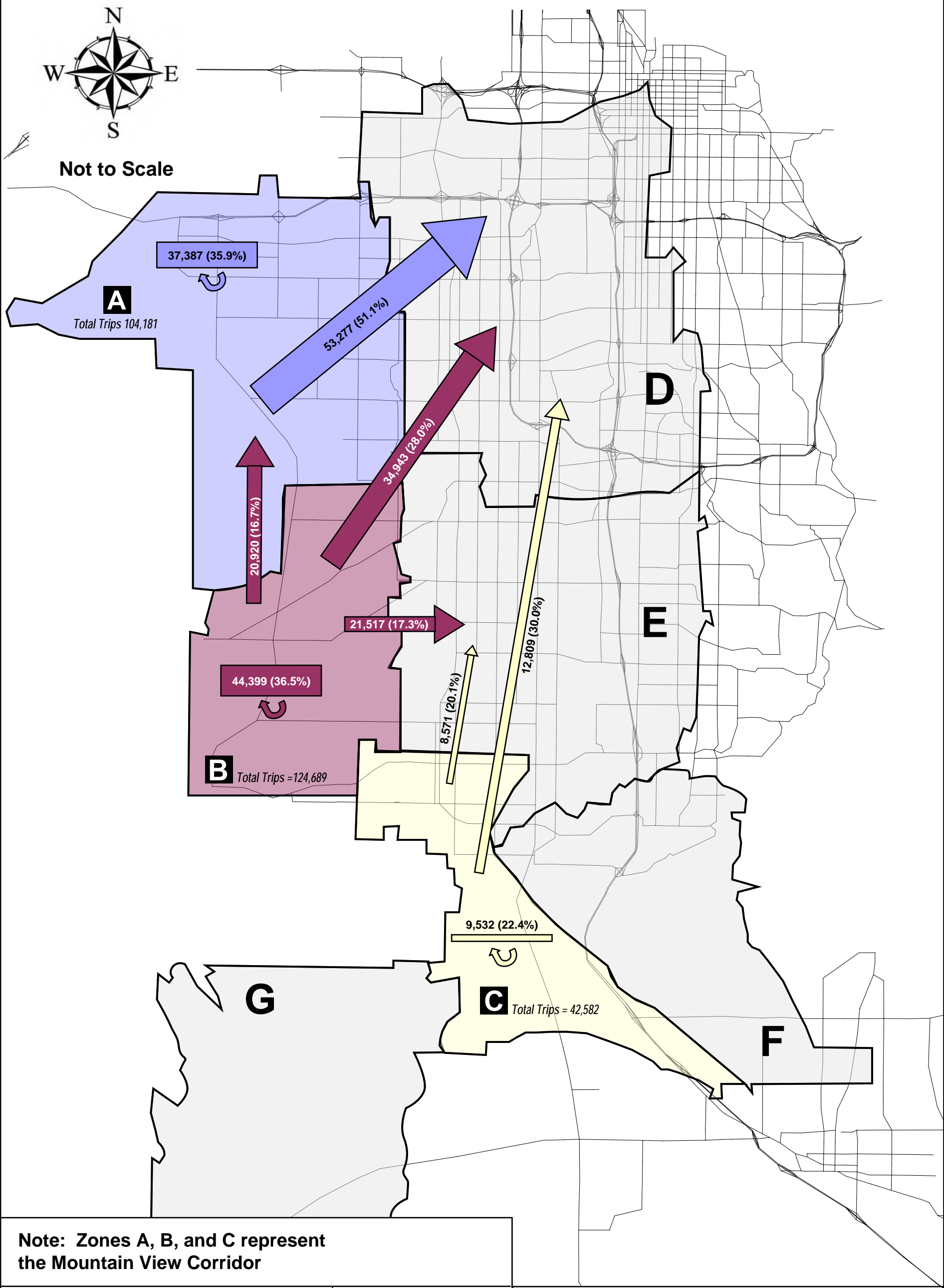


ENVIRONMENTAL
IMPACT STATEMENT

DRAFT
Chapter 1 - Purpose and Need

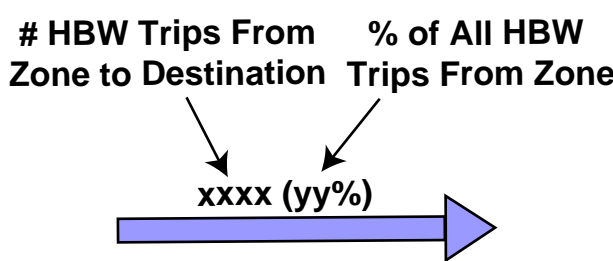
Figure 1-8

**Current (2001)
Transportation Network,
I-80 to 4100 South**



Note: Zones A, B, and C represent the Mountain View Corridor

Key to Numbers Listed on Desire Line Arrows



NOTE: Interzonal Trips with 2030 volume of less than 8,500 are not shown

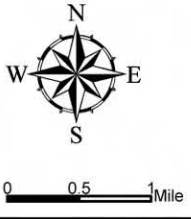
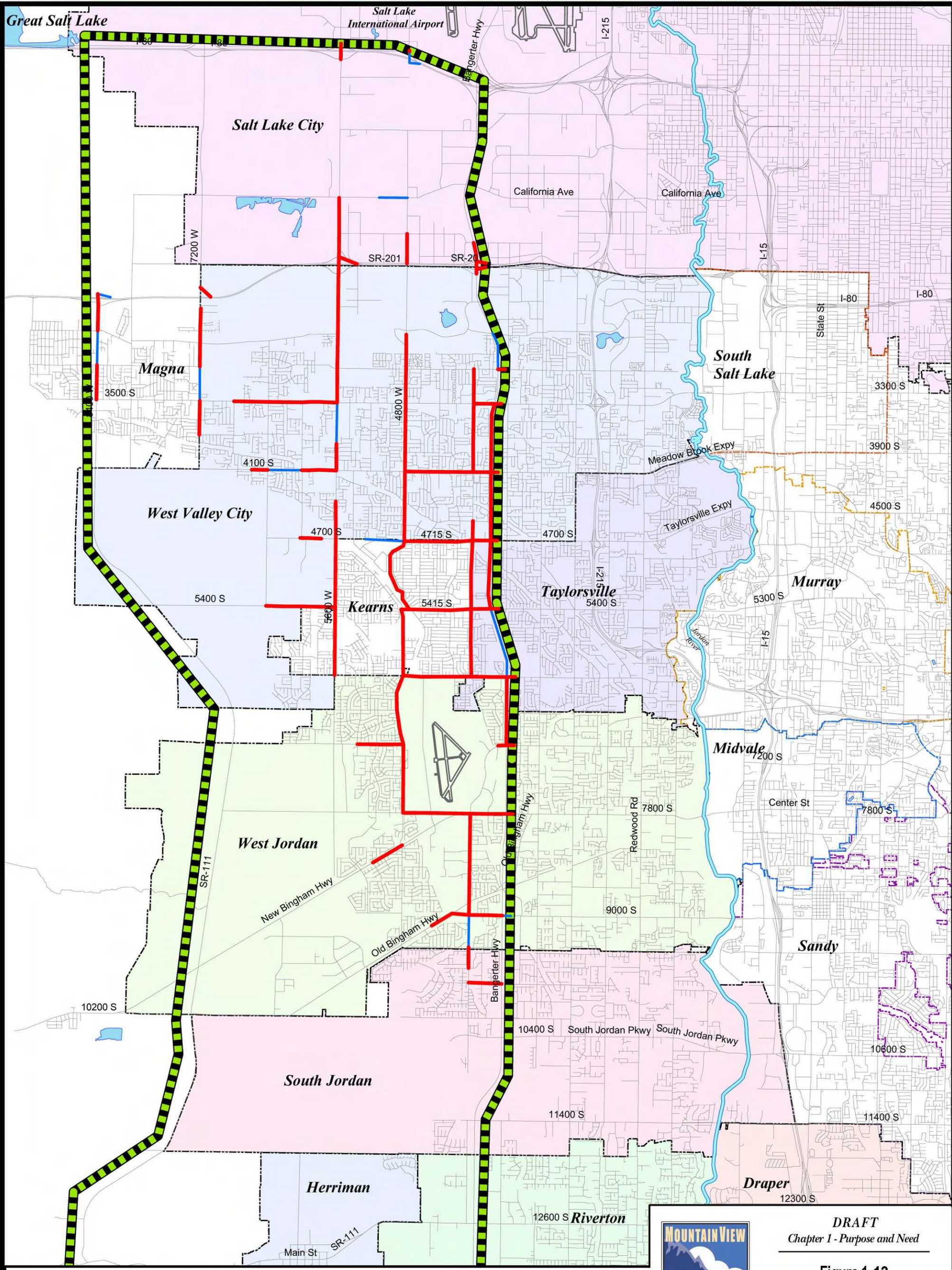


ENVIRONMENTAL
IMPACT STATEMENT

DRAFT
Chapter 1 - Purpose and Need

Figure 1-12

2030 Home-Based Work Trips
Originating in the
Mountain View Corridor



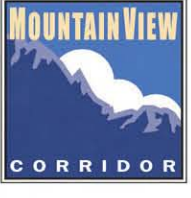
2001 LOS

LOS E

LOS F

Study Area

Peak PM Period (3-6 pm)
Peak Direction



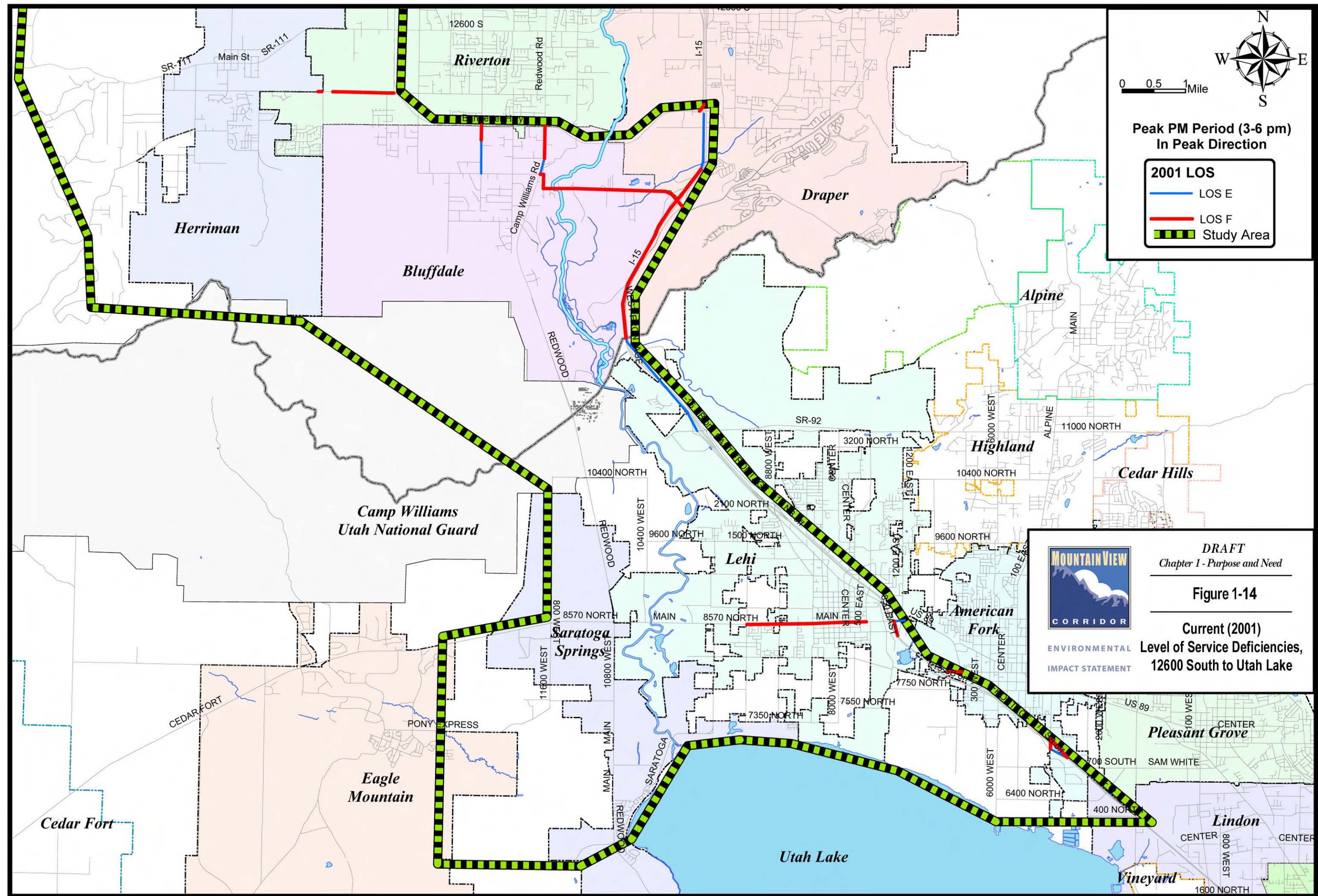
ENVIRONMENTAL
IMPACT STATEMENT

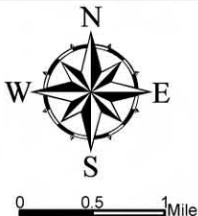
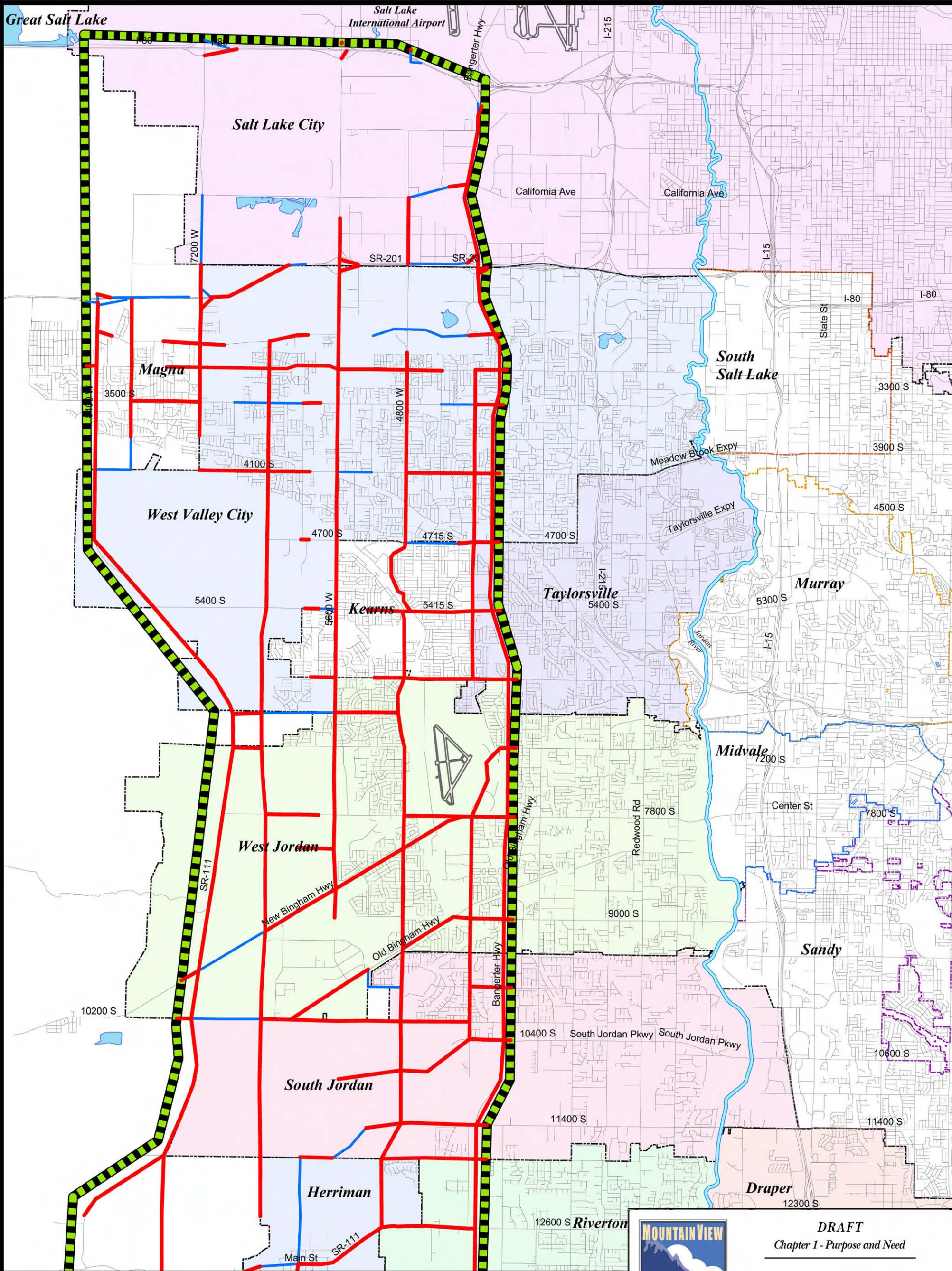
DRAFT

Chapter 1 - Purpose and Need

Figure 1-13

Current (2001)
Level of Service Deficiencies,
I-80 to 12600 South





2030 LOS

- LOS E
- LOS F
- ▨ Study Area

**Peak PM Period (3-6 pm)
In Peak Direction**

MOUNTAIN VIEW
CORRIDOR

ENVIRONMENTAL
IMPACT STATEMENT

DRAFT
Chapter 1 - Purpose and Need

Figure 1-15

**Future (2030)
Level of Service Deficiencies,
I-80 to 12600 South**

